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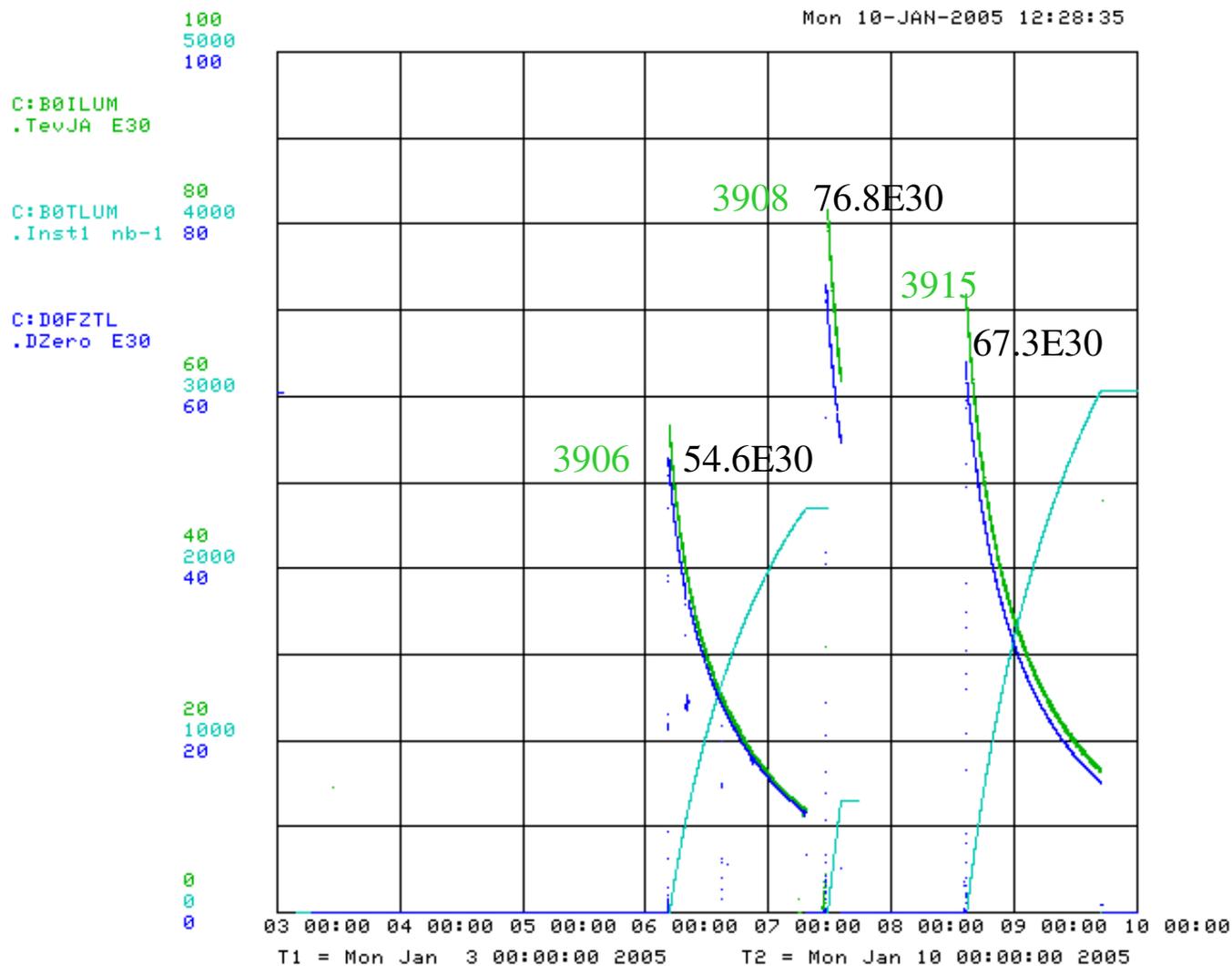
# All Experimenter's Meeting

Jim Morgan  
January 10, 2005

# Stores Summary

Store	Initial Lum. (E30)	Deliv'd Lum. (nb <sup>-1</sup> )	Termination	Time (hr)	Total Pbars (E10)	Comments (Stack/Stash)
3906	54.6	2,307	Planned	26.6	104.2	
3908	76.8	651	Loss of Store	2.8	188.5	Mixed-pbar shot (160.8/27.7E10)
3915	67.3	3,027	Planned	26.3	181.6	

# Integrated Luminosity for the week

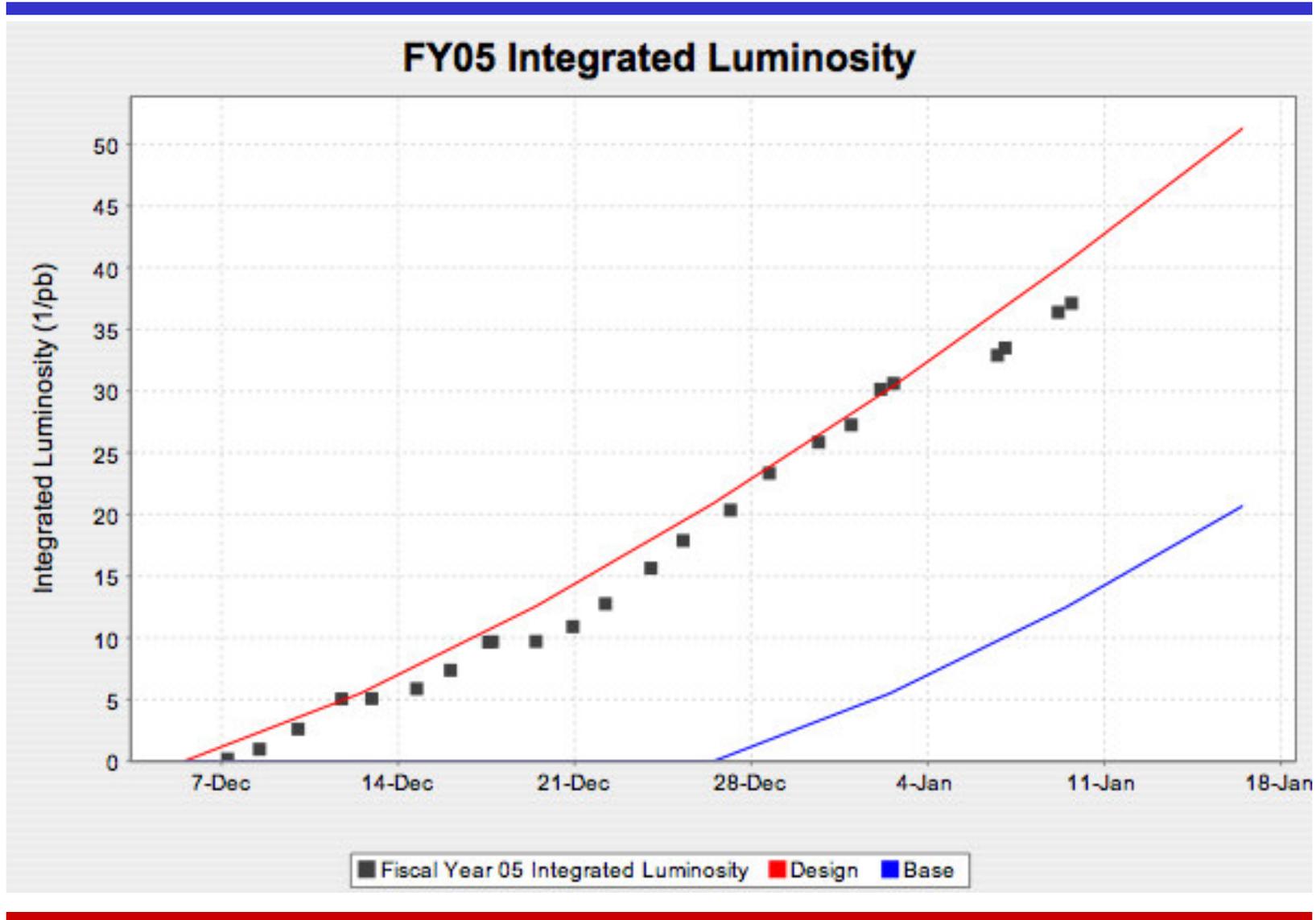


# Power Outage Recovery Timeline

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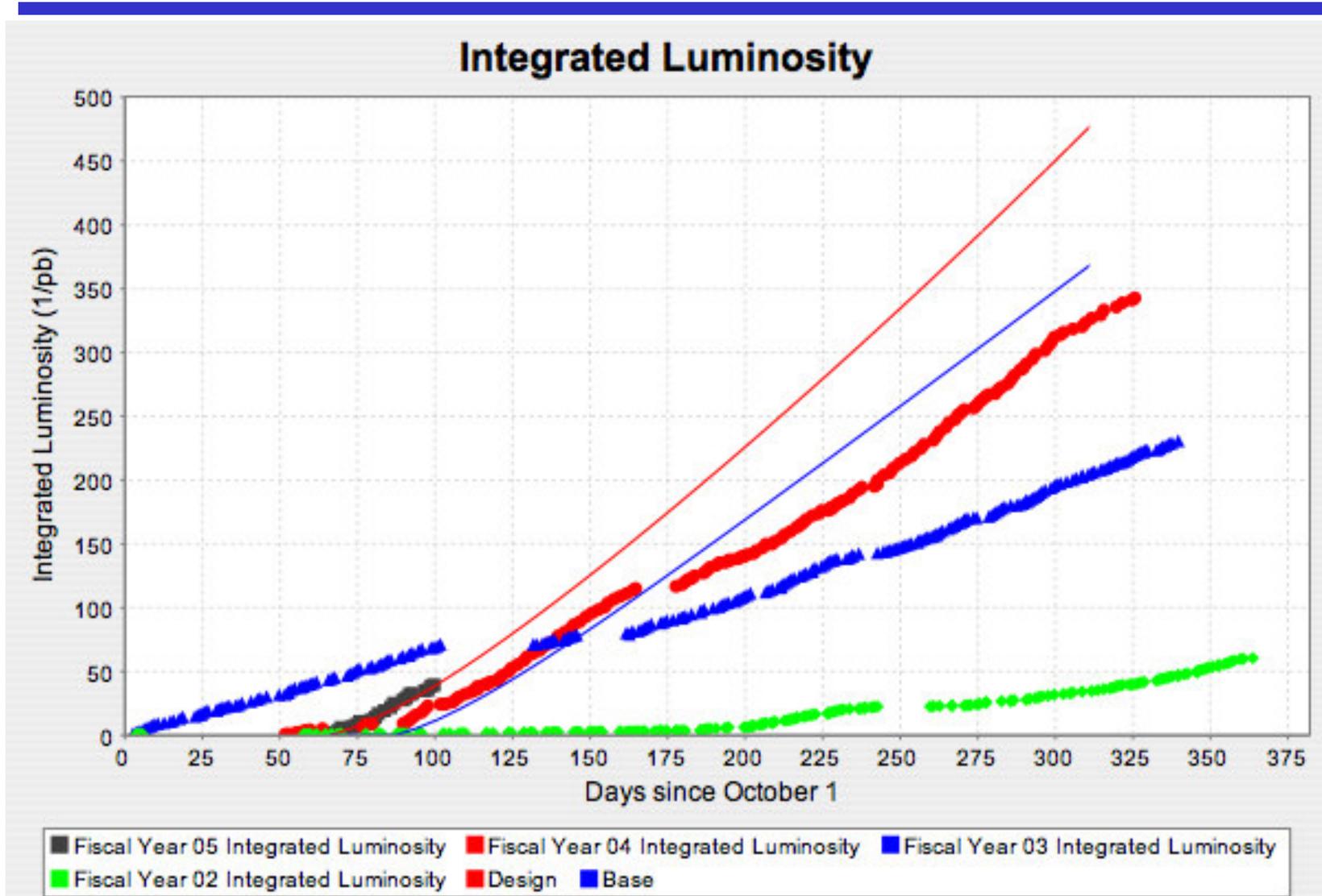
- **Master Substation power outages Sunday 1/3 and Monday 1/4**
  - First power outage occurs on Sunday 1/3 at 2346 and lasts 15-20 seconds
  - Second power outage occurs on Monday 1/4 at 0031 and lasts 1.5 hours
    - MSS power switched to Kautz Rd.
- **Cause of outage traced to bad relay in Lombard**
  - Repairs begin at 0300
  - Relay taken out of service at 0600, plan for switch back to MSS at 1100
  - Another bad relay is found in MSS, switch delayed until repairs are made
  - Repairs are completed during evening, Power switched back to original configuration at 0700 on Tuesday 1/5
- **Cryogenic recovery**
  - Impact of outage greatly reduced because Kautz Rd. powers part of the helium compressors
  - Cooldown makes progress on Monday 1/4 while on Kautz Rd. power
  - All houses but B-1 cold on Tuesday 1/5 at 1800, all houses cold by midnight
- **CDF IP adjustment**
  - Plan was to move low beta quads to correct CDF IP sometime in mid-January
  - Able to accomplish moves mostly in parallel with power outage recovery
- **Beam start-up**
  - Linac and Booster have beam mid-afternoon on Tuesday 1/5
  - Main Injector has beam accelerated within hour, Recycler has beam
  - Pbar stacking resumes late Tuesday afternoon
  - MiniBoone resumes operation Tuesday evening
  - Tevatron begins tune-up on late on Wednesday owl shift, SY120 resumes on day shift
- **First Collider store begins on Thursday 1/7 at 0439**

# Integrated Luminosity

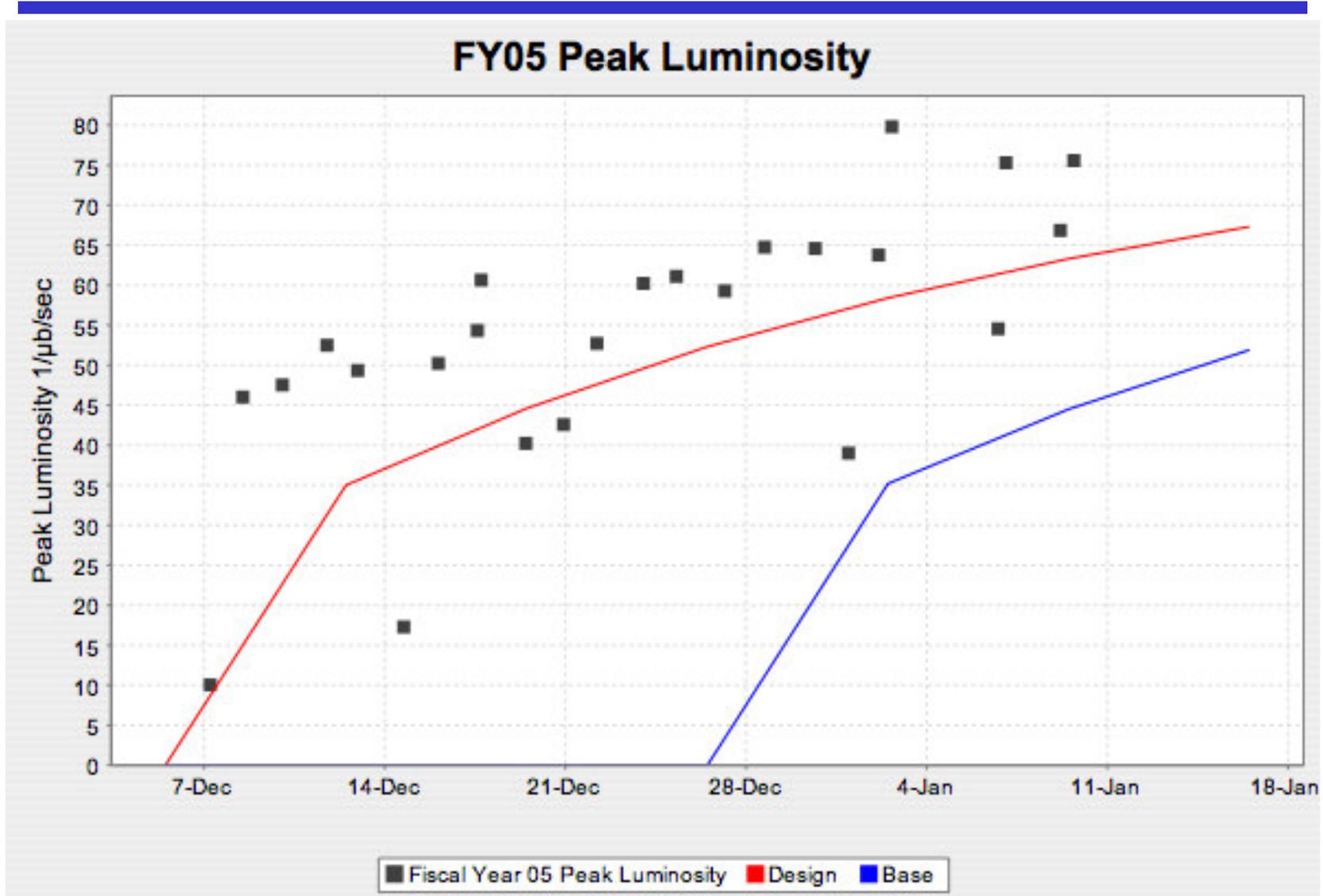


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# Luminosity goals

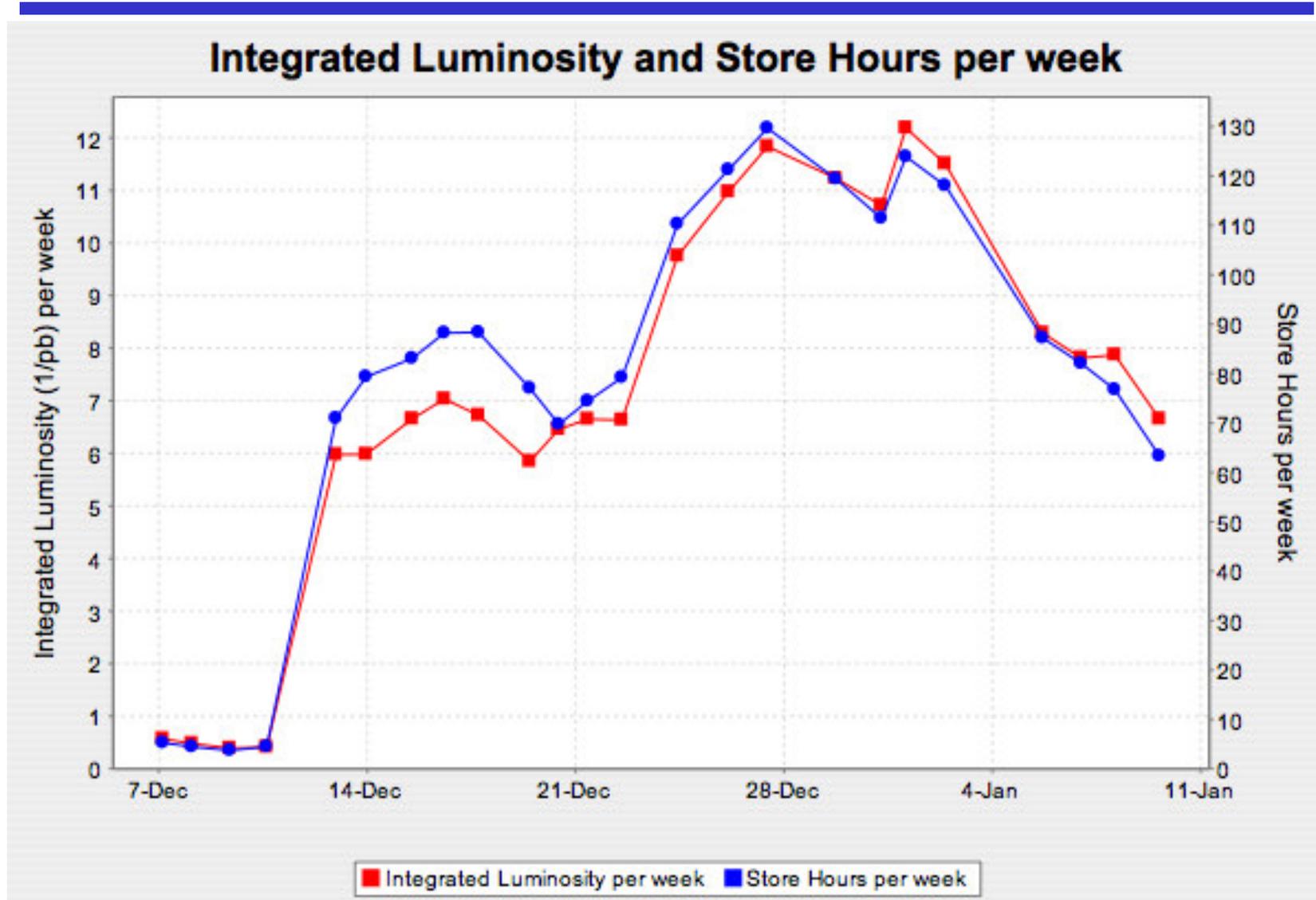


# Peak Luminosity Goals

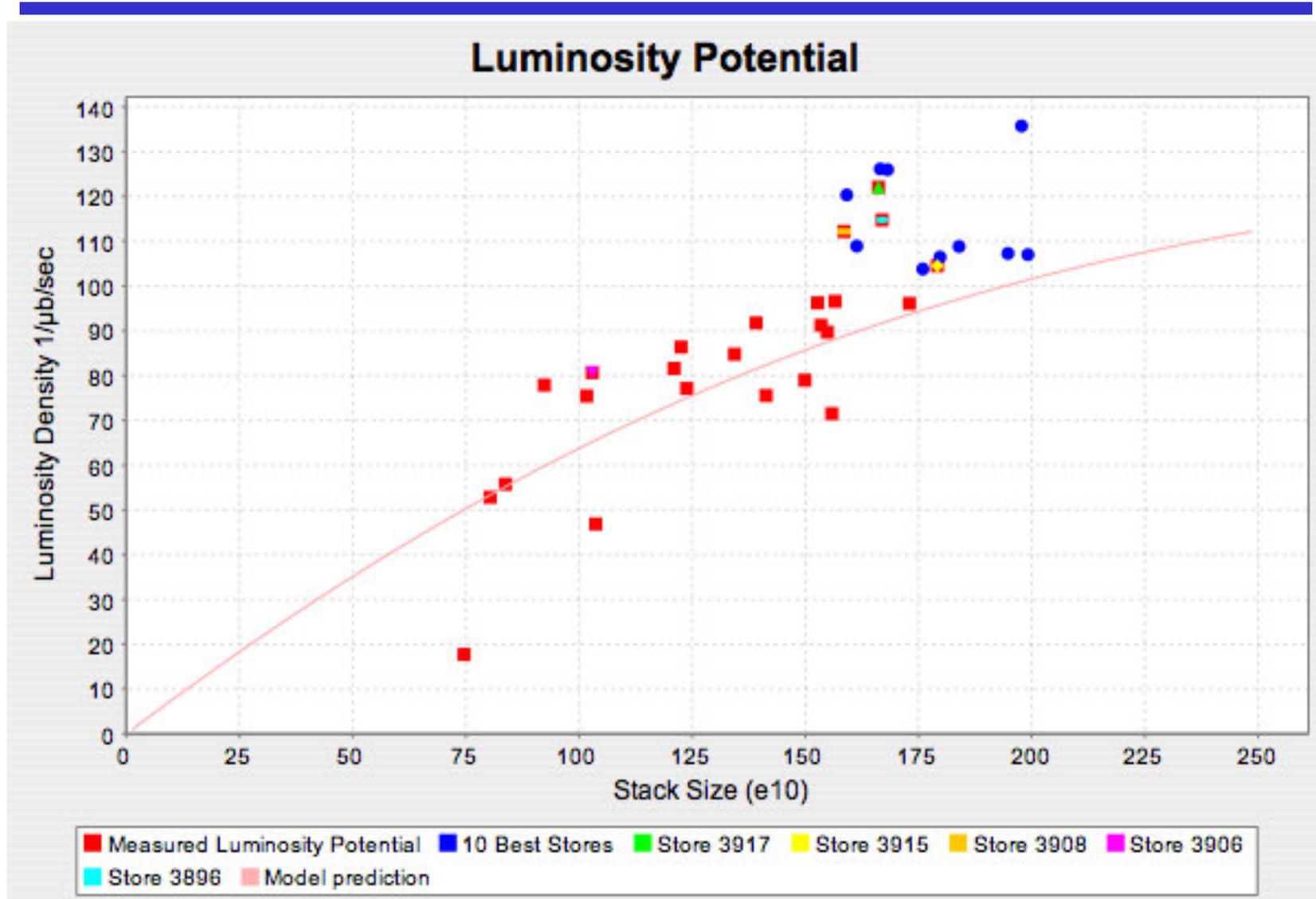


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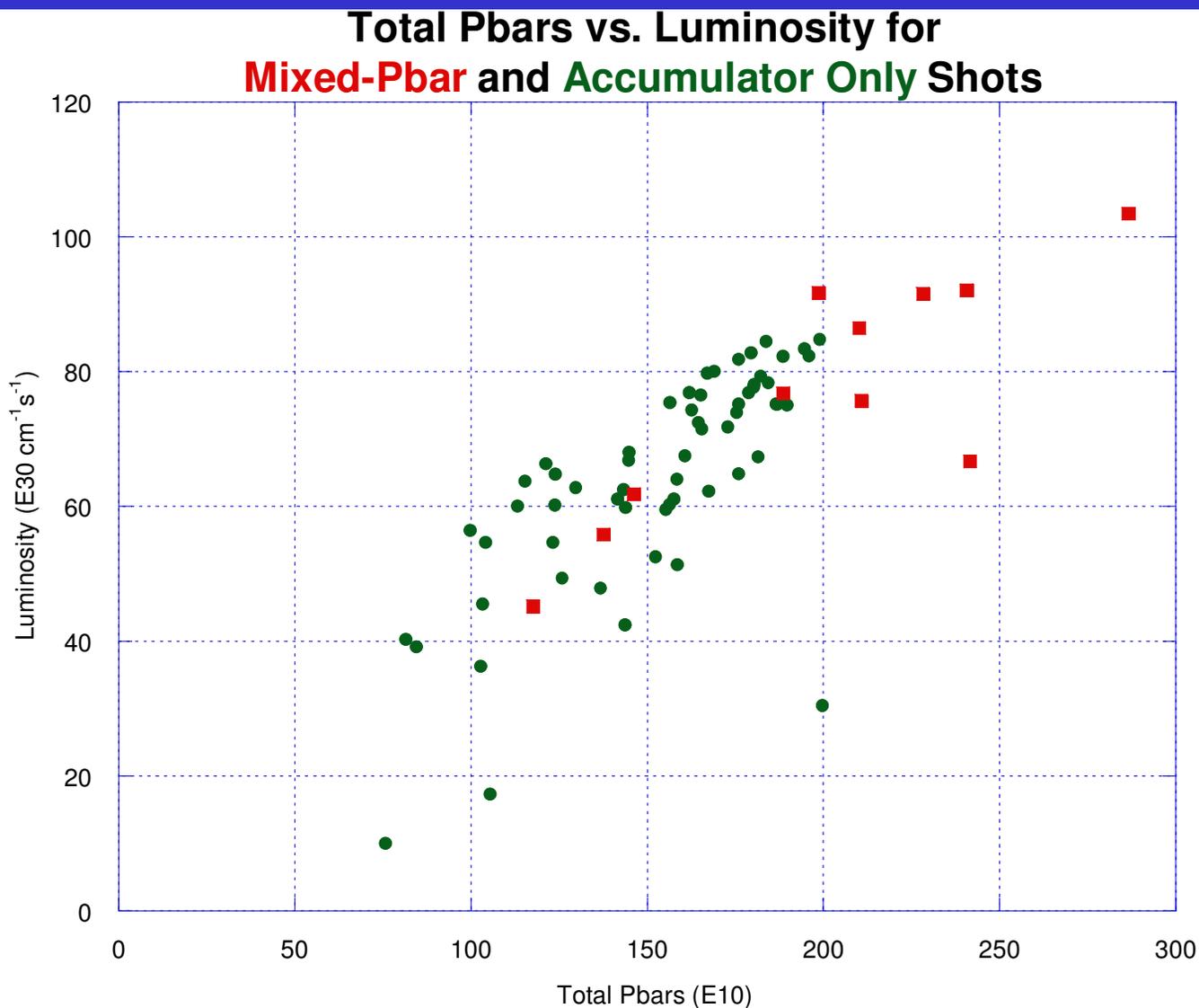
## Integrated Luminosity and Store Hours



# Luminosity Potential

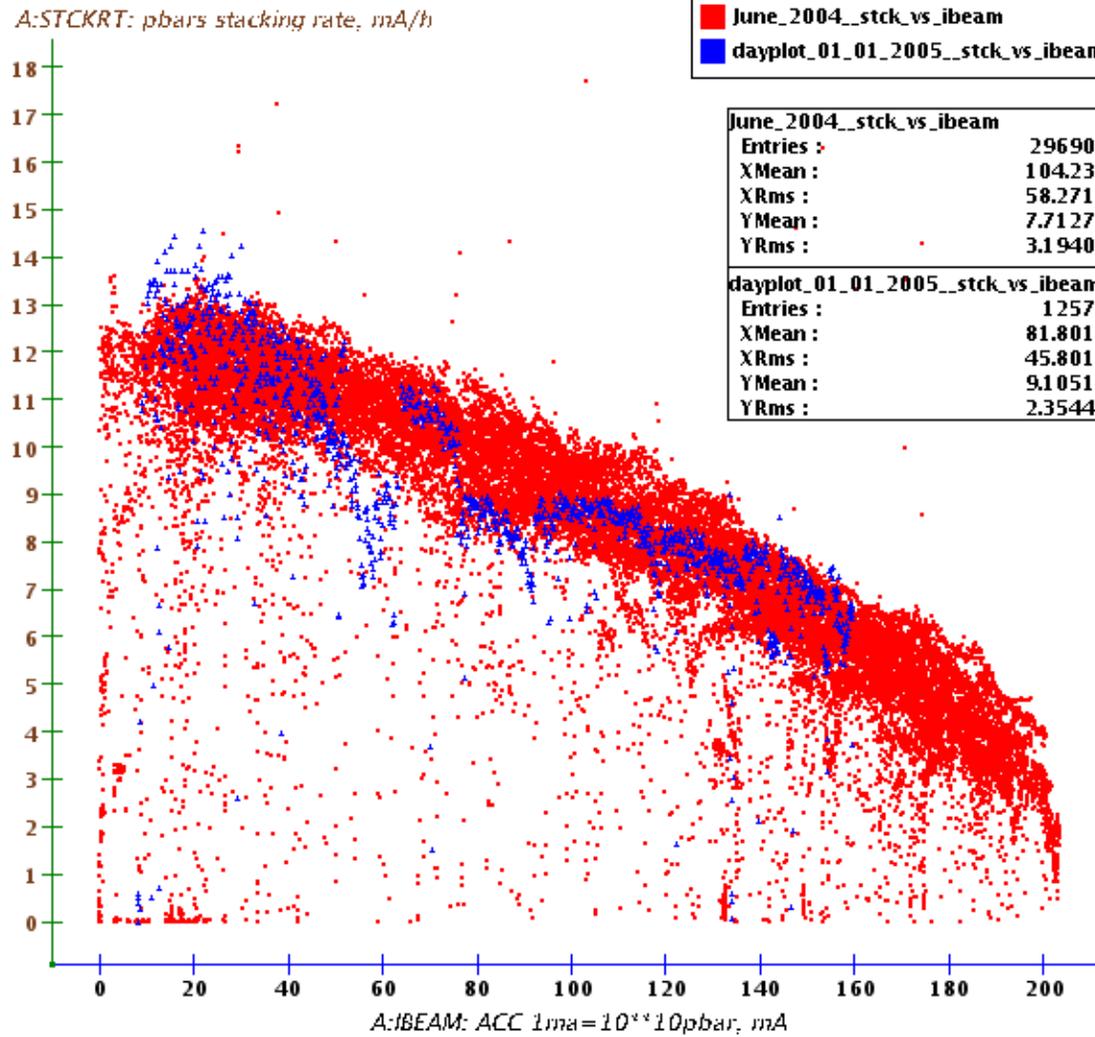


# Comparison of Mixed-Pbar and Accumulator only shots

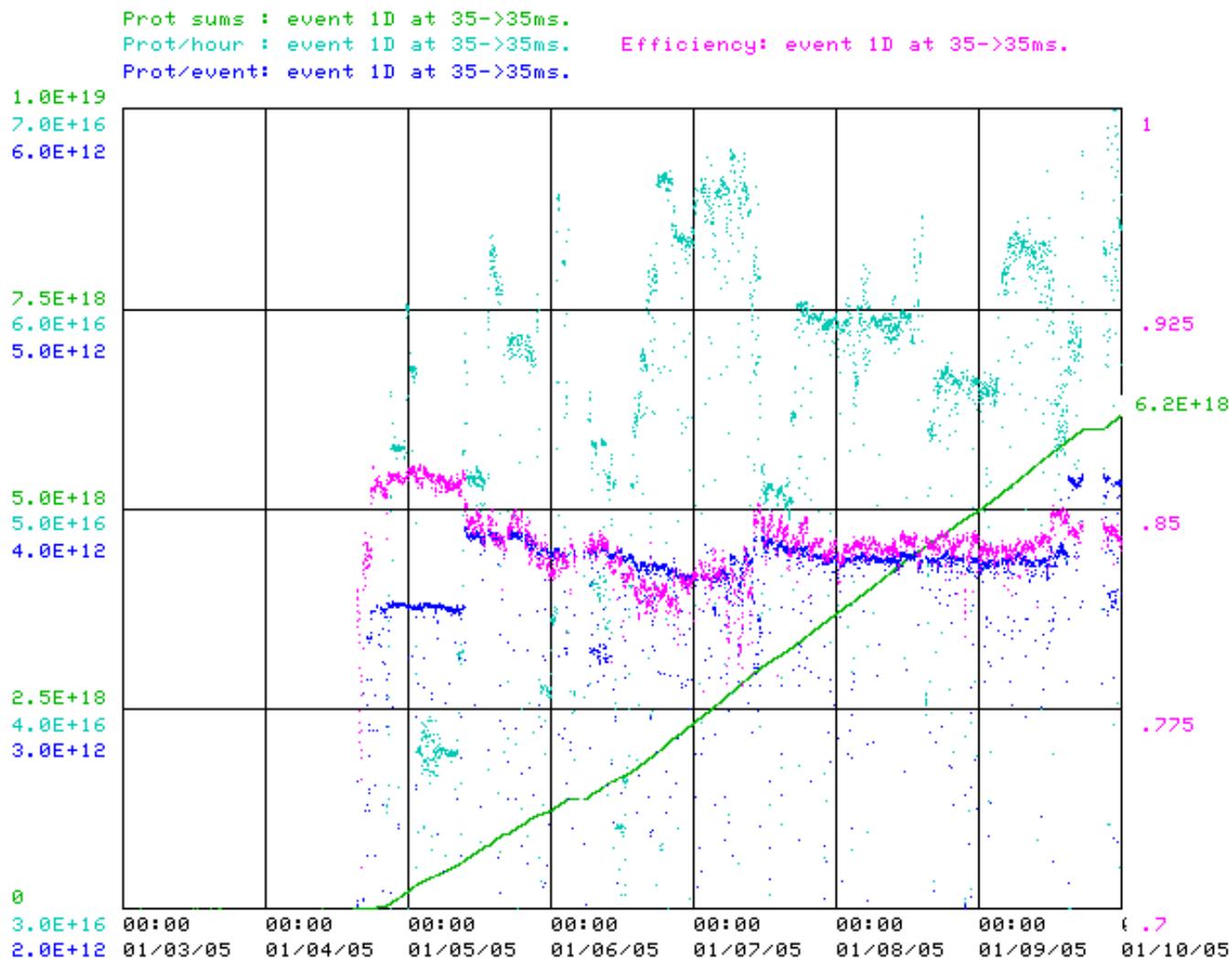


# Stack size vs. stacking rate

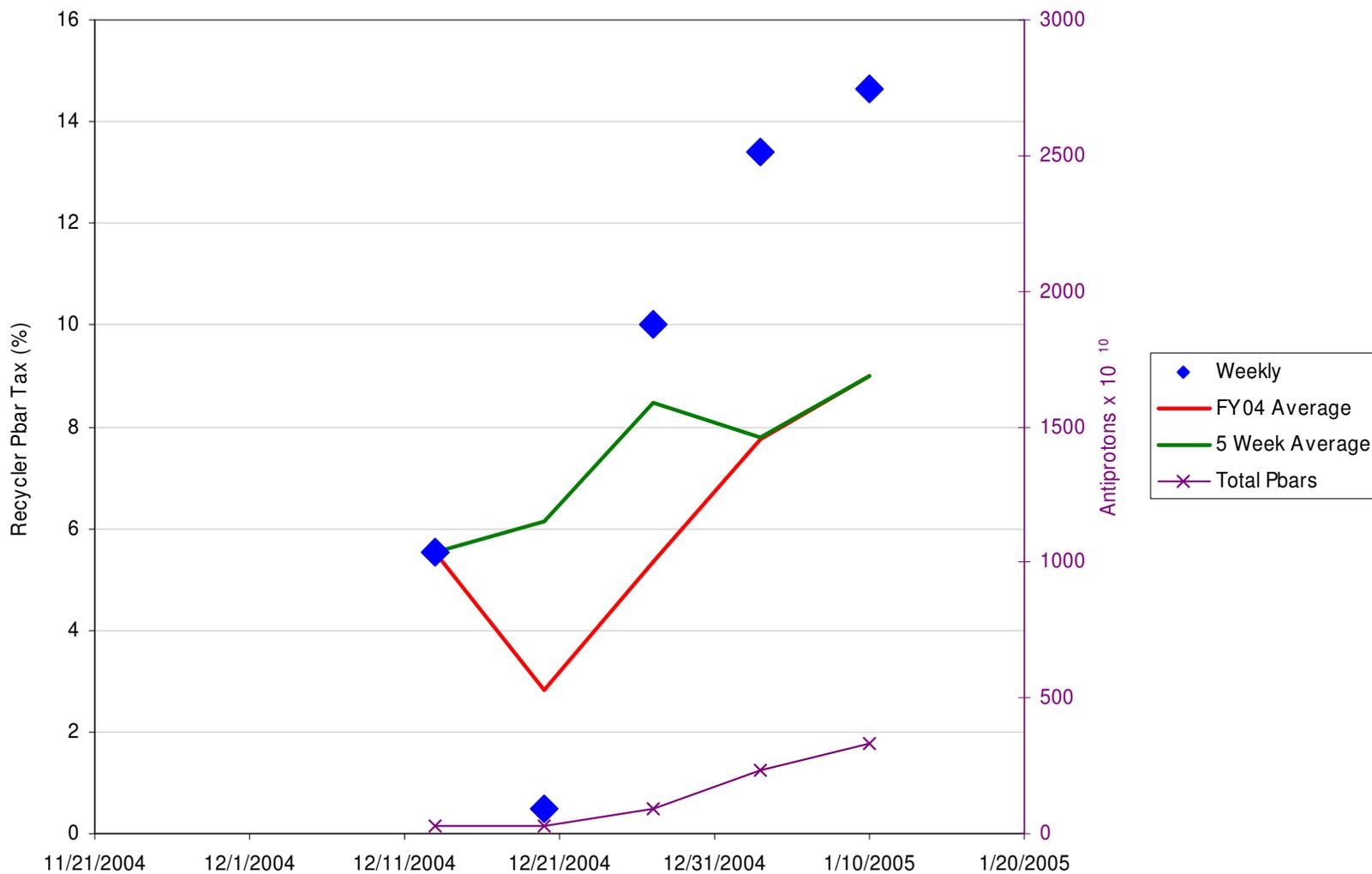
June\_2004\_\_stck\_vs\_ibeam - dayplot\_01\_01\_2005\_\_stck\_vs\_ibeam



# MiniBoone Performance



# Recycler Pbar Tax



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# Machine Studies

## Pbar Studies

	<b>16.9</b>	<b>Sum for week</b>
	<b>18.7</b>	<b>Sum for year</b>
	<b>11.0</b>	<b>Average for week</b>

## Tevatron Studies

<b>1/5/05</b>	<b>13.5</b>	<b>Orbit, tune and chrom. adjustments after power outage</b>
<b>1/5/05</b>	<b>3.3</b>	<b>Aperture scans and schottky saturation investigation</b>
<b>1/7/05</b>	<b>0.3</b>	<b>Flying wires</b>
<b>1/7/05</b>	<b>1.0</b>	<b>Separator scans</b>
<b>1/7/05</b>	<b>1.2</b>	<b>Wet squeeze for separator measurements</b>
<b>1/9/05</b>	<b>9.2</b>	<b>Octupole studies and quench recovery</b>
	<b>28.5</b>	<b>Sum for week</b>
	<b>91.1</b>	<b>Sum for year</b>
	<b>19.3</b>	<b>Average for week</b>

# Plan for the week

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- Proton Source
  - Continue to work on intensity, efficiency and shot emittances
- Main Injector
  - Increase intensity and efficiency on coalescing
  - Continue work on slip-stacking
- Pbar Source
  - Correct Debuncher orbit
  - Concentrate on small stack stacking rate
- Recycler
  - Continue supporting routine mixed-pbar shots
- Tevatron
  - Prepare to use additional octupole circuits during a collider store
  - Work on pbar lifetime at 150 GeV (may be fixed by octupoles)